

CLAIMS

What is claimed is:

1. A reef artifact for diminishing the shock of a water current or wave, comprising:

a reef-like formation having a varied surface; and

a connector configured to mount the reef-like formation on a structure, wherein the structure is at least partially submerged in water and receives a shock from water moving toward the structure, the reef-like formation being configured to disrupt the flow of the water adjacent thereto such that the reef-like formation absorbs at least a portion of the shock of the water moving toward the structure.

2. A reef artifact as in claim 1, wherein the connector is a bracket.

3. A reef artifact as in claim 1, wherein the reef-like formation defines at least one aperture where water can flow therethrough.

4. A reef artifact as in claim 1, wherein the reef-like formation is further configured to be mounted with a desired amount of space between the reef-like formation and the structure such that water can flow therebetween.

5. A reef artifact as in claim 1, wherein the reef-like formation is generally flat.

6. A reef artifact as in claim 1, wherein the varied surface simulates the contours of coral.

7. A reef artifact as in claim 1, wherein the reef-like formation has reef-organism structures thereon.

8. A reef artifact as in claim 1, wherein the reef-like formation comprises a calcium carbonate based concrete.

9. A reef artifact as in claim 1, wherein the reef-like formation comprises a compressed concrete and synthetic fibers.

10. A reef artifact assembly comprising a plurality of reef artifacts according to claim 1, the plurality of reef artifacts being mounted to a structure, wherein the structure comprises a wall.

11. A reef artifact assembly as in claim 10, wherein each of the reef artifacts are mounted below a water surface.

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12. A reef artifact designed to simulate a naturally occurring reef, comprising:
a reef-like formation having a varied surface with contours that have the appearance of coral; and
at least one reef-organism structure formed on said reef-like formation.
13. A reef artifact as in claim 12, further comprising a plurality of a reef-organism structures.
14. A reef artifact as in claim 12, wherein the at least one reef-organism structure has the appearance of reef organism.
15. A reef artifact as in claim 12, wherein the at least one reef-organism structure is a simulated reef organism.
16. A reef artifact as in claim 12, wherein the at least one reef-organism structure is a naturally-occurring reef organism.
17. A reef artifact as in claim 12, wherein the at least one reef-organism structure has the appearance of a fish.
18. A reef artifact as in claim 12, wherein the at least one reef-organism structure has the appearance of a starfish.

19. A reef artifact as in claim 12, wherein the at least one reef-organism structure has the appearance of a shell.

20. A reef artifact as in claim 12, wherein the at least one reef-organism structure has an appearance selected from the group consisting of a fish, a shell, a crab, an octopus, a sea horse, a plant, a starfish, and combinations thereof.

21. A reef artifact as in claim 12, wherein the reef-like formation is configured to be mounted on a structure.

22. A reef artifact as in claim 12, wherein the reef-like formation is configured to stand alone.

23. A reef artifact as in claim 12, wherein the reef-like formation defines at least one aperture where water can flow therethrough.

24. A reef artifact as in claim 12, wherein the reef-like formation is further configured to be mounted with a desired amount of space between the reef-like formation and the structure such that small marine animals can fit therebetween.

25. A reef artifact as in claim 12, wherein the reef-like formation is generally flat.

26. A reef artifact as in claim 12, wherein the reef-like formation comprises a calcium carbonate based concrete.

27. A reef artifact as in claim 12, wherein the reef-like formation comprises a concrete and a synthetic fiber.

28. A reef artifact assembly comprising a plurality of reef artifacts according to claim 12, wherein the plurality of reef artifacts are mounted below a water surface.

29. A reef artifact assembly comprising a plurality of reef artifacts according to claim 28, wherein the reef artifacts are mounted between about 2 feet and about 10 feet below the water surface.

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30. A method for making a reef artifact mold comprising:
providing a reef-like formation;
providing at least one reef-organism structure;
adhering the at least one reef-organism structure to the reef-like formation to
produce a reef artifact form; and
making a reef artifact mold using said reef artifact form.

31. A method according to claim 30, wherein the at least one reef-organism
structure simulates a naturally occurring reef organism.

32. A method according to claim 30, wherein the at least one reef-organism
structure simulates a naturally occurring reef organism.

33. A method according to claim 30, wherein the at least one reef-organism
structure is a naturally occurring reef organism.

34. A method according to claim 30, wherein providing the reef-like formation
comprises selecting or cutting travertine stone.

35. A method according to claim 30, further comprising adhering a plurality of
reef-organism structures to the reef-like formation.

36. A method according to claim 35, wherein providing the plurality of reef-organism structures comprises:

selecting a plurality of dehydrated reef organisms;

forming a rubber negative mold of each of the plurality of dehydrated reef organisms; and

pouring a wax into each of the rubber negative molds to form the plurality of reef-organism structures.

37. A method according to claim 36, wherein adhering the reef-organism structures to the reef-like formation comprises melting a surface layer of wax of each of the reef-organism structures and adhering each of the reef-organism structures to the reef-like formation before the melted wax hardens.

38. A method of making a reef artifact according to claim 30 further comprising, (i) pouring a moldable material into the reef artifact mold and (ii) allowing the moldable material to harden to form a reef article, and removing the reef artifact from the reef artifact mold.

39. A method of making a reef artifact assembly according to claim 35 further comprising, repeating steps (i) and (ii) to form a plurality of reef artifacts and mounting the plurality of reef artifacts on a structure.

40. A method according to claim 39, wherein mounting the plurality of reef artifacts on the structure further comprises:

drilling a plurality of holes in the structure with a desired spacing for mounting the plurality of reef artifacts thereon;

inserting a bolt into the hole and using a marine epoxy to permanently fix the bolt in the hole; and

mounting the reef artifacts on the bolts.

41. A method according to claim 39, wherein each of the plurality of reef artifacts is mounted between about 2 and about 10 feet below a water surface.

42. A method according to claim 39, wherein step (i) further comprises partially inserting a mounting bracket into the moldable material.

43. A method according to claim 42, wherein each of the plurality of reef artifacts is mounted with a desired amount of space between the structure and the reef artifact such that small marine animals can fit therebetween.

44. A method as in claim 42, wherein the moldable material is concrete.

45. A method as in claim 44, wherein the concrete comprises calcium carbonate.